



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/912,315

07/26/2001

Hideo Kobayashi

110207

4956

25944

7590

10/20/2003

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

NGUYEN, KEVIN M

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,315

Applicant(s)

KOBAYASHI ET AL.

Examiner

Kevin M. Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Oba et al (US 6,441,828).
3. As to claim 1, Oba et al teaches an image display apparatus (50) associated with a method comprising: an optical switching element (55), a display element (52), a resistance component (69), voltage supply (67), controlling a display of the display element (52) by controlling a ratio of the resistance component (69) of the optical switching element (55) at least depending on the applied voltage direction to control an electric charge amount of the display element (see figure 15, column 11, lines 1-19).

As to claim 2, Oba et al teaches the ratio of the resistance component (69), the optical switching element is "a light sensor (55)" (see figure 15, column 11, line 1-2).

4. As to claims 3, 4, Oba et al teaches an image display apparatus (50) associated with a method comprising: an optical switching elements (55, 56), a display element (52), a resistance component (69), voltage supply (67), applying a voltage to the display element during both the case where the sensors (55, 56) are irradiated with light and

Art Unit: 2674

the case where the sensors (55, 56) are not irradiated with light so that the voltage compares larger or smaller than predetermined by means of controlling the resistance (69) to turn ON/OFF the display element (52) (see figure 15, column 10, lines 43-62 and column 11, lines 1-45).

5. As to claims 5, 7, Oba et al teaches a phase changed of the display element (52) is controlled by a threshold voltage "predetermined range" after a driving pulse is turned off (see column 10, lines 55-58).

6. As to claim 6, Oba et al teaches a first threshold voltage "predetermined range" of a sensor 56, and a second threshold voltage "predetermined value" of the sensor 55 (see figure 15).

7. As to claim 12, Oba et al teaches the optical switching elements (55, 56), a resistance component (69), an AC voltage, and a display element (52).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oba et al in view of Iijima et al (US 5,516,607).

10. As to claims 8-10, 13, Oba et al teaches all of the claimed limitation of claim 1, except for a cholesteric liquid crystal, an organic material, a charge generating layer, a charge transport layer. However, Iijima et al teaches a cholesteric liquid crystal (column

Art Unit: 2674

6, lines 57-58), an organic material (column 7, line 53), a charge generating layer, a charge transport layer (column 13, lines 41-45). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the a cholesteric liquid crystal, an organic material, a charge generating layer, a charge transport layer taught by Iijima et al for Oba et al's display panel because this would improve the high resolution images (column 3, lines 12-13), while fabricating the display panel at simple at well (column 3, lines 20-22 of Iijima et al).

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oba et al in view of Shimizu (US 3,700,936).

12. As to claim 11, Oba et al teaches all of the claimed limitation of claim 1, except for the applied voltage is a sine wave whose frequency is equal to or higher than 500Hz. However, Shimizu teaches the applied voltage is a sine wave whose frequency is equal to or higher than 500Hz (see figures 1 and 2, column 2, lines 49-51). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the applied voltage is a sine wave whose frequency is equal to or higher than 500Hz taught by Shimizu for Oba et al's transformer because this would improve the frequency of the driving voltage supplied to the elements (column 1, lines 28-29 of Shimizu).

13. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oba et al in view of Shakamoto (US 6,429,839).

14. As to claims 14 and 15, Oba et al teaches all of the claimed limitation of claim 1, except for a recording medium driving unit, a photo addressing unit. However, Shakamoto teaches a related LCD panel which includes a LCD driving unit (3) and a

Art Unit: 2674

back light (2) (see figure 1, column 6, lines 21-29). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the LCD driving unit (3) and the back light (2) for Oba et al's LCD panel because the light for the display is consistently maintained in a suitable state while flicker in the display is reduced (see column 5, lines 1-3 of Shakamoto).

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Art Unit: 2674

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
October 10, 2003



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600